

Table 7. Educational Parameters of the Didactic Component of the Expanded Functions Dental Assistant Curriculum		
Unit	Title	Number of Tasks
17	Aiding in the Administration of Nitrous Oxide / Oxygen Analgesia	114
18	Finishing and Polishing Amalgam Restorations	59
19	Polishing Composite Restorations	16
20	Coronal Polishing	108
21	Application of Pit and Fissure Sealants	69
22	Obtaining Alginate Impressions	127
23	Temporary Crown Restorations	56
Total		549

17.0 Aiding in the Administration of Nitrous Oxide/Oxygen Analgesia

- I) Number of Tasks to Master = 114.
- II) Intended Outcome: Given information about the properties, effects and uses of nitrous oxide, analgesia versus anesthesia, equipment used in administration of nitrous oxide, administration, legal chart entries and terms related to breathing and respiration, overall the student must demonstrate to at least 85% accuracy on the didactic examination.
- III) Tasks:

17.01 Properties of Nitrous Oxide

- A) Name the five properties of nitrous oxide.
 - (1) True anesthetic.
 - (2) Least potent of all anesthetic gases.
 - (3) Nonirritating, colorless gas with a sweet taste and odor.
 - (4) Travels through the blood stream in a free gas state.
 - (5) Total saturation in the blood occurs within three to five minutes.

17.02 Effects of Nitrous Oxide

- A) Name four pharmacological effects of nitrous oxide.
 - (1) Total circulation time for one breath of nitrous oxide/oxygen is three to five minutes.
 - (2) No changes in the heart rate (pulse) or blood pressure.
 - (3) Nonirritating to the lungs.
 - (4) Changes in the respiratory rate are related more to the relaxation of the patient than to the nitrous oxide itself.
- B) Name the most common side effect of nitrous oxide.
 - (1) Nausea.
- C) Name five reasons that increase the incidence of nausea.
 - (1) Prolonged administration or rapid induction.
 - (2) Higher concentrations.
 - (3) Following a heavy meal.
 - (4) Following fasting.
 - (5) Patients with a history of vomiting or motion sickness.

D) List six adverse reactions of nitrous oxide.

- (1) Hypoxia.
- (2) Bone marrow depression.
- (3) Pressure/volume effect.
- (4) Psychological reactions.
- (5) Fire.
- (6) Protective reflexes.

17.03 Analgesia versus Anesthesia

A) Describe the three types of pain control.

- (1) Sedation – The calming of a nervous apprehensive patient without loss of consciousness.
- (2) Analgesia – Creates a decreased ability or inability to perceive pain.
- (3) Anesthesia – Produces a lack of all sensation.

B) List and describe the four stages of anesthesia.

- (1) Analgesia – The patient is conscious and cooperative, pain reaction is decreased.
- (2) Delirium – The excitement stage. The patient becomes extremely stimulated, raged and possibly angry.
- (3) Surgical – The patient is unconscious and life support is required, total lack of sensation.
- (4) Respiratory paralysis – Death occurs in this stage.

C) Name the five clinical effects of plane 1 analgesia.

- (1) Patient appears normal, relaxed, and awake.
- (2) Slight tingling in the toes, fingers, tongue, or lips.
- (3) Patient may giggle.
- (4) Vital signs remain normal.
- (5) No definite clinical manifestations.

D) Name the 10 clinical effects of plane 2 analgesia.

- (1) Patient may have a dreamy look.
- (2) Reactions of the patient are slowed.
- (3) Partial amnesia may occur.
- (4) Voice will sound "throaty."
- (5) Patient will feel warm and drowsy.
- (6) Patient may drift in and out of the environment.
- (7) Patient may hear pleasant ringing in ears.
- (8) Vital signs remain normal.
- (9) Pain is reduced or eliminated but touch and pressure are still perceived.
- (10) Patient is less aware of surroundings; sounds and smells are dulled.

E) List the eight clinical effects of plane 3 analgesia.

- (1) Patient becomes angry with a hard stare.
- (2) Patient's mouth tends to close frequently.
- (3) Patient no longer cooperates.
- (4) Patient is totally unaware of surroundings.
- (5) Patient may hallucinate.
- (6) Patient's chest may feel heavy.
- (7) Sensation of flying or falling uncontrolled spinning.
- (8) Pupils may dilate.

17.04 Uses of Nitrous Oxide/Oxygen

A) List four primary indications for use of nitrous oxide/oxygen.

- (1) Patients with fear and anxiety.
- (2) Patients who are allergic to or refuse local anesthesia.
- (3) Patients with a prominent gag reflex.
- (4) Impatient patients.

B) List six indications for use of nitrous oxide/oxygen with special considerations.

- (1) Patients with cardiovascular disease.
- (2) Patients with cerebrovascular disease.
- (3) Patients with respiratory disease such as asthma.
- (4) Patients with hepatic (liver) disease.
- (5) Patients with seizure disorders.
- (6) Patients taking tranquilizers, analgesics, antidepressants or hypnotics.

C) List eight contraindications for use of nitrous oxide/oxygen.

- (1) Patients with nasal obstructions (common cold, upper respiratory infections, allergies, or deviated nasal septum).
- (2) Patients with chronic obstructive pulmonary disease.
- (3) Patients with debilitating cardiac or cerebrovascular disease.
- (4) Patients who are pregnant.
- (5) Patients with psychiatric disorders or compulsive personalities.
- (6) Claustrophobic patients.
- (7) Children with severe behavioral problems.
- (8) Patients who do not want nitrous oxide/oxygen.

17.05 Equipment Used In the Administration of Nitrous Oxide/Oxygen

A) List four pieces of equipment necessary in the use of nitrous oxide/oxygen.

- (1) Nitrous oxide tank (always blue).
- (2) Oxygen tank (always green).
- (3) Nitrous oxide/oxygen machine.
- (4) Breathing apparatus.

B) Name three types of breathing apparatus.

- (1) Full face mask.
- (2) Nasal hood.
- (3) Nasal cannula.

C) List the eight safety features used on nitrous oxide equipment.

- (1) Pin index and diameter index safety system.
- (2) Minimum oxygen liter flow.
- (3) Oxygen fail-safe system.
- (4) Emergency air inlet.
- (5) Fail-safe alarm.
- (6) Oxygen flush button.
- (7) Color coding.
- (8) Textured knobs.

17.06 Administering Nitrous Oxide/Oxygen

- A) List the eight steps that should be followed when administering nitrous oxide.
- (1) Begin the flow of oxygen at 8 liters.
 - (2) Place the nosepiece over the patient's nose.
 - (3) Begin the nitrous oxide at 20% and the oxygen at 85%.
 - (4) Observe the patient for one minute prior to changing dosages.
 - (5) Increase the nitrous oxide by ½ liter and decrease the oxygen by ½ liter until desired effect is obtained.
 - (6) Monitor clinical manifestations closely.
 - (7) Never leave the patient unattended.
 - (8) Oxygenate the patient three to five minutes until normalcy is regained.

17.07 Legal Chart Entries

- A) List the eight items that should be included in the patients chart entry.
- (1) Patient's vital signs – pre- and post-op.
 - (2) Consent of patient was granted.
 - (3) Routine information including the date, procedure, performed, and post-op information given.
 - (4) Maximum levels of nitrous oxide used stated in terms of percentages.
 - (5) Length of administration.
 - (6) Any other anesthetics or medications given.
 - (7) Length of oxygenation.
 - (8) Any side effects or complications incurred.

17.08 Terms related to Breathing and/or Respirations

- A) Name the seven terms commonly associated with the use of nitrous oxide that relate to patient breathing or respirations.
- (1) Eupnea.
 - (2) Tachypnea.
 - (3) Bradypnea.
 - (4) Hyperpnea.
 - (5) Hypopnea.
 - (6) Anoxia.
 - (7) Hypoxia.
- B) Give the definition of each of the seven terms that relate to breathing or respirations.

- (1) Eupnea – Normal breathing.
- (2) Tachypnea – Rapid breathing.
- (3) Bradypnea – Slow breathing.
- (4) Hyperpnea – Over respirations.
- (5) Hypopnea – Under respiration.
- (6) Anoxia – Total lack of oxygen.
- (7) Hypoxia – Decreased oxygen in the tissue.

18.0 Finishing and Polishing Amalgam Restorations

- I) Number of Tasks to Master = 59.
- II) Intended Outcome: Given information about the principles of amalgam restorations and the amalgam finishing and polishing armentarium, overall the student must demonstrate to at least 85% accuracy on the didactic examination.
- III) Tasks:

18.01 Principles of Amalgam Restorations.

- A) List the four major reasons for polishing amalgam restorations.
 - (1) Prevention of recurrent decay.
 - (2) Prevention of amalgam deterioration.
 - (3) Maintenance of periodontal health.
 - (4) Prevention of occlusal problems.
- B) Explain two reasons why finishing and polishing of amalgam restorations prevents recurrent decay.
 - (1) By eliminating surface roughness, plaque has less surface area to colonize.
 - (2) The smooth, lustrous finish is easier to clean than an unpolished surface.
- C) List two forms of amalgam deterioration that finishing and polishing can prevent or delay.
 - (1) Tarnish.
 - (2) Corrosion.
- D) Explain the difference between corrosion and tarnish.
 - (1) Tarnish is a surface discoloration resulting from the interaction of the metal, oxygen, and sulfides from foods, etc.
 - (2) Corrosion is a surface, as well as a subsurface, chemical reaction that results in the structural breakdown of the amalgam causing pitting and fracture of the restoration's margins.

E) List the four embrasures found between teeth.

- (1) Occlusal embrasure.
- (2) Gingival embrasure.
- (3) Buccal/facial embrasures.
- (4) Lingual/palatal embrasures.

F) Explain three ways that an “overhang” adversely affects gingival health.

- (1) Making the area difficult to clean.
- (2) Causing pressure and inflammation in the tissue.
- (3) Trapping plaque.

G) List two gingival problems.

- (1) Gingival trauma under function.
- (2) Gingival inflammation with periodontal pocketing.

H) List three problems associated with leaving an amalgam restoration in hyper-occlusion (a high restoration).

- (1) Pain and sensitivity.
- (2) Tooth or restoration fracture.
- (3) Misalignment of teeth.

I) Explain the difference between flashing and ditching.

- (1) Flashing: Excess amalgam at the cavosurface margin resulting in the restoration margin being above the cavosurface.
- (2) Ditching: Insufficient amalgam at the cavosurface margin resulting in the restoration margin being below the cavosurface.

J) List four characteristics that will be exhibited when an amalgam restoration that is no longer serviceable is not replaced.

- (1) Fracturing of the restoration or tooth structure.
- (2) Inadequate interproximal tooth contact (class II restorations).
- (3) Inadequate tooth anatomy (occlusal contact is insufficient or marginal ridges are below the plane of occlusion and cannot be modified adequately).
- (4) Margins are below the cavosurface beyond modification (ditching due to marginal fracture or insufficient fill).

K) Explain the difference between finishing and polishing.

- (1) Finishing: The removal of gross surface irregularities by contouring, removing surface discrepancies, defining the anatomy, and smoothing the amalgam surface. This will result in an optimal overall contour, an undetectable transition at the cavosurface margin, and a uniform surface smoothness.
- (2) Polishing: The consecutive use of abrasive agents that progress from coarse to very fine in order to produce the smoothest and shiniest surface possible.

18.02 The Amalgam Finishing and Polishing Armamentarium.

(Note: There is much duplication in the instruments and materials available for finishing and polishing. The operator should strive to select a minimum number that will do the job well, but that will keep the procedure simple and minimize the amount of time necessary to accomplish the procedure.)

(Note: The Idaho State Board of Dentistry has stated that a dental assistant should not operate a high-speed handpiece in any capacity. When using any of the following rotary instruments, it is intended that they be used in a slow-speed handpiece.)

A) Explain the “reasons” and “rules” for use of the five major types of finishing agents available for amalgam restorations.

- (1) Green Stones: These stones are harder than enamel and very abrasive and must only be used when absolutely needed. They are used for reducing bulky amalgam, reducing premature contacts, recontouring inadequate anatomy, and reducing flash.
- (2) Finishing Burs: These burs have 12 or 32 blades. These burs should always be run in reverse to avoid cutting tooth structure. (Idaho State law prohibits the removal of tooth structure by a dental assistant.) They can be used to define and smooth grooves and fossae, smooth cavosurface margins, and smooth the concave areas of the occlusal surface.
- (3) Rotary Disks: These disks range from coarse to very fine and come in a variety of abrasives that vary in hardness. They are used on the convex surfaces of the facial/buccal and lingual/palatal as well as interproximally.

CAUTION: It is often necessary to reverse the direction of the disk while using it interproximally to avoid grabbing which causes loss of control of the disk and can result in hard or soft tissue injury.

- (4) Hand Instruments: Various sharp hand instruments can be used in finishing amalgams to smooth cavosurface margins and enhance grooves and fossae. The discoid/cleoid and the Hollenbeck are two common amalgam carvers often used for this purpose.
 - (5) Finishing Strips: These abrasive strips are used below the contact area of class II amalgams to reduce gingival margin overhangs bringing them level with the cavosurface. Care should be taken to avoid soft tissue injury when using these strips. Particularly be aware of the tongue and lip that can easily be lacerated.
- B) Explain the “reasons” and the “rules” for the use of the three polishing agents available for amalgam restorations.
- (1) Flour of Pumice: This material is used to remove the largest of the remaining scratches in the surface of the restoration after the finishing procedures are completed. It is mixed with water to form a pumice slurry. Several grits are available and should be used with the principle in mind that one progresses from the coarsest to the finest. It is applied to the amalgam with a rubber prophyl cup and results in a satiny shine.
 - (2) Tin Oxide: This material is the last of the polishing materials to be used in the polishing of amalgam. It can be used by mixing with water or ethyl alcohol, or it can be used dry. It is applied to the amalgam in a rubber prophyl cup and results in a mirror like finish.
 - (3) Shofu® Polishing Points and Cups: These points and cups are rubber rotary instruments designed to be used in place of pumice and tin oxide. They come in three grits named Brownies®, Greenies®, and Super Greenies®. Care should be taken while using them so as not to generate excess heat which can damage the pulp of the tooth and will bring mercury to the surface of the amalgam resulting in diminished shine of the final polish.
- C) List and explain five precautions that must be taken during the polishing procedure.
- (1) Maintain functional anatomy by using the instruments in the correct manner.
 - (a) Start all rotary instruments prior to touching the restoration.
 - (b) Keep instruments moving over the surface.
 - (c) Use short overlapping strokes to minimize friction.
 - (d) Use each instrument only on the surfaces for which it was designed.
 - (e) Be aware of the four surface changes that can be inflicted upon a restoration while finishing and polishing that will destroy it.

- (i) Flattening cusps excessively.
 - (ii) Reducing marginal ridges below the plane of occlusion.
 - (iii) Removing the contact.
 - (iv) Deeply ditching or grooving the restoration.
- (2) Avoid improper contouring by understanding the proper tooth anatomy that must be achieved.
- (3) Prevent damage to the patient's soft tissue.
 - (a) Retract the tongue, cheeks and lips during the procedure.
 - (b) Position instruments correctly so they will not abrade the soft tissue.
 - (c) Use a secure grasp and stable fulcrum with each instrument.
 - (d) Rinse all abrasive materials from the mouth after polishing.
- (4) Protect the patient from polishing debris.
 - (a) Remove excess abrasive material from the mouth as quickly as possible.
 - (b) Provide eye protection for the patient.
 - (c) Do not carry instruments or abrasive materials over the patient's face.
- (5) Protect the pulp of the tooth from excess heat.
 - (a) Use air or water cooling streams whenever possible.
 - (b) Run rotary instruments at the minimum speed that will still be effective.
 - (c) Use intermittent contact of the rotary instruments to the tooth surface.

D) List the 16-step sequence for finishing and polishing amalgam restorations.

- (1) Review the procedure with the patient.
- (2) Evaluate restoration to be finished and polished.
- (3) Check the occlusion of the restoration using articulation paper.
- (4) Isolate the restoration using rubber dam/cotton roll.
- (5) Remove occlusal excess.
- (6) Identify occlusal anatomy: developmental grooves and triangular fossae.
- (7) Smooth the occlusal cavosurface margins.
- (8) Smooth the occlusal surface.
- (9) Recontour proximal areas.
- (10) Smooth proximal cavosurface margins and surface using finishing disks and strips.
- (11) Smooth facial and lingual surfaces.

- (12) Polish the restoration using pumice/tin oxide and abrasive polishing points and cups.
- (13) Rinse and evacuate all debris.
- (14) Evaluate polished amalgam.
- (15) Recheck the occlusion and final polish.
- (16) Chart entry.

19.0 Polishing Composite Restorations

- I) Number of Tasks to Master = 16.
- II) Intended Outcome: Given information about the reasons and concerns for polishing composite restorations, filling maintenance, and the basic procedure for polishing composite restorations, overall the student must demonstrate to at least 85% accuracy the didactic examination.
- III) Tasks:

19.01 Reasons and Concerns for Polishing Composite Restorations

- A) State three reasons why a composite restoration should be polished.
 - (1) The filling should be highly polished to reduce the surface roughness and make the tooth as cleanable as possible.
 - (2) The filling should be polished to make it more resistant to food particles adhering to its surface.
 - (3) The filling should be polished to ensure that its margins are sealed to guard against microleakage between the restoration and the tooth structure.
- B) State five concerns for evaluating a restoration to determine if it is serviceable.
 - (1) Are the interproximal contacts correctly adapted to the adjacent teeth?
 - (2) Is the occlusal contact correct or can it be adjusted to contact properly without adding to or replacing the restoration?
 - (3) Is there evidence of microleakage at the margins?
 - (4) Is there evidence of ditching or microfracturing at the margins due to wear or attrition in service?
 - (5) Is there evidence of impact fracturing?

19.02 Filling Maintenance

- A) Explain what three parts of a filling must be maintained while polishing to avoid rendering the restoration non-serviceable.
- (1) The interproximal contacts must be maintained.
 - (2) No centric occlusion or direct intercuspation should occur on the composite's occlusal surface.
 - (3) The occlusal anatomy must be maintained as close to the optimal tooth morphology as possible. (Note: Though the dental assistant can evaluate the occlusal morphology, because the adjustment would require the use of a high speed handpiece and finishing burs or the addition of composite material, the actual adjustment must be performed by the supervising dentist.)

19.03 Basic Procedure for Polishing Composite Restorations

- A) List and explain (where applicable) the five step procedure for polishing composite restorations.
- (1) The armamentarium is obtained and prepared with the following:
 - (a) Slow-speed handpiece.
 - (b) Appropriate mandrels and disks, cups, or points for the particular system of abrasive polishing materials to be used.
 - (c) Diamond polishing paste.
 - (d) Mouth mirror.
 - (e) Explorer.
 - (f) Air/water syringe.
 - (g) Articulating paper and holder.
 - (h) Finishing strips.
 - (i) White stone.
 - (j) Prophyl angle.
 - (k) Prophyl cup.
 - (l) 2 x 2 gauze and cotton rolls.
 - (m) Unfilled resin bonding agent or a commercial composite sealer.
 - (n) Curing light.

- (2) The restoration is polished (by performing the following 13 steps).
 - (a) The coarse disk is placed on the mandrel and the convex areas of the restoration are polished until they have reached a uniform smoothness with no obvious deep scratches or gouges.
 - (b) The coarse points or cups are placed on the mandrel and the concave areas of the restoration are polished to a uniform smoothness with no obvious deep scratches or gouges.
 - (c) The articulating paper is used to ensure that the optimal occlusal contacts have not been lost.
 - (d) The medium disk, cup, or point is then used as above, but the result should be significantly more glossy.
 - (e) The articulating paper is again used to ensure the occlusal contacts are still undisturbed.
 - (f) The fine and very fine disks, cups, or points are then used in order to achieve the smoothest and glossiest surface possible.
 - (g) Again the articulating paper is used between each grit size.
 - (h) The prophyl angle and a prophyl cup are attached to the handpiece and a small amount of the diamond polishing paste is dispensed into a dappen dish and carried to the restoration.
 - (i) The restoration is then polished to a high luster with the diamond polishing paste.
 - (j) The restoration is washed.
 - (k) The restoration and the cavosurface margins of the restoration are re-etched with 30% to 37% phosphoric acid gel for 15 seconds and thoroughly rinsed with copious amounts of water for 10 seconds.
 - (l) Unfilled resin (bonding agent) or a commercially prepared composite sealer is brushed over the entire surface of the restoration and the cavosurface margins.
 - (m) The sealer is then air thinned with the air/water syringe and cured for 10 to 20 seconds with the curing light.
- (3) Re-evaluate the restoration polish to ensure it has been performed correctly and that the restoration has not been rendered unserviceable.
 - (a) The student will again go through the steps of evaluating the restoration as in 19.2 above.
- (4) The supervising instructor checks the restoration polish.
- (5) The patient is released and the procedure is recorded in the patient chart.

20.0 Coronal Polishing

- I) Number of Tasks to Master = 108.
- II) Intended Outcome: Given information about the definitions of polishing, implications of polishing, classification of stain, types of stain, laws and rules of the Idaho State Board of Dentistry, evaluation, assessment, cleaning and polishing agents, abrasion, application of abrasives, commonly used abrasives in dentistry, commercial preparations for polishing, armamentarium and principles of polishing, overall the student must demonstrate to at least 85% accuracy on the didactic examination.
- III) Tasks:

20.01 Definitions of Polishing

- A) Define coronal or traditional polishing.
 - (1) The use of a polishing agent on the crowns and root surfaces of teeth to remove bacterial plaque and extrinsic stains.
- B) Define selective polishing.
 - (1) The removal of extrinsic stains from the surfaces of the teeth after instrumentation. Stain removal is for aesthetic reasons.
- C) Define the goal of selective polishing.
 - (1) To remove all the extrinsic stains from the teeth after instrumentation.

20.02 Implications of Polishing

- A) Explain the effect of polishing on the enamel surfaces of demineralized teeth.
 - (1) Three times more surface enamel is lost polishing on a demineralized surface vs. polishing on intact enamel.
- B) Explain why rotary instruments should be used with caution on a patient with a communicable disease.
 - (1) Aerosols are created during polishing and remain suspended in the air for long periods of time. Greater risk for disease transmission.

C) Explain how heat production from polishing can damage tooth structure.

- (1) Hand pressure applied to the tooth with a rapidly moving rubber cup or brush can produce heat to the tooth causing pain and discomfort for the patient.

D) State two effects that can occur to the gingival tissue from improper polishing techniques.

- (1) Particles from the polishing agents can be forced into the sulcus and cause irritation to the tissue if the cup is run at high speeds.
- (2) Trauma to the gingiva can result when the rubber cup is placed too close to the gingival margin and run at high speeds. Severe inflammation can occur.

E) Explain how the fluoride-rich surface on a tooth is removed.

- (1) The outermost layer of the tooth contains the highest concentration of fluoride. Polishing can remove the fluoride-rich surface over time.

20.03 Classification of Stain

A) Define extrinsic stain.

- (1) Extrinsic stain occurs on the surface of the tooth and is associated with plaque.

B) Define intrinsic stain.

- (1) Intrinsic stain is incorporated within the tooth structure and may be related to the period of tooth development.

20.04 Types of Stain

A) List four types of extrinsic stains.

- (1) Green stain.
- (2) Black line stain.
- (3) Tobacco stain.
- (4) Yellow stain.

B) List three types of intrinsic stain.

- (1) Tetracycline stain.
- (2) Dental fluorosis.
- (3) Amelogenesis imperfecta.

20.05 Laws and Rules of the Idaho State Board of Dentistry

A) Define the meaning of Dental Assistant from the Idaho Code Statute.

- (1) “Dental assistant” is a person who need not be licensed under this chapter, but who is regularly employed by a dentist at his office, who works under the dentist’s direct supervision, and is adequately trained and qualified according to standards established by the board to perform the dental services permitted to be performed by assistants by this chapter and applicable rules of the board.

B) Explain the role of the State Board of Dentistry.

- (1) To assure the public health, safety and welfare in the state of Idaho by the licensure and regulation of dentists and dental hygienists.

C) Define the Administrative rule 35. 01. e.

- (1) **Prohibited Duties.** Subject to other applicable provisions of these rules and of the Act, dental assistants are hereby prohibited from performing any of the activities specified below:
(e.) Any oral prophylaxis. Oral prophylaxis is defined as the removal of plaque, calculus and stains from the exposed and unexposed surfaces of the teeth by scaling and polishing.

20.06 Evaluation

A) List seven reasons for not polishing.

- (1) No stain is present.
- (2) Increased risk of dental caries.
- (3) Newly erupted teeth.
- (4) Patient with respiratory problems.
- (5) Tooth sensitivity.
- (6) Restorations are present.
- (7) Xerostomia.

B) State five conditions that would require modification or postponement of the polishing procedure.

- (1) Soft, spongy tissue that bleeds with instrumentation or gentle brushing.
- (2) Root planning or deep subgingival scaling.
- (3) Poor plaque control by the patient.
- (4) Herpetic lesion(s).
- (5) Trauma around the lip area or oral mucosa.

C) List three reasons why it is important to inform the patient of the procedure.

- (1) To provide the rationale for doing the procedure.
- (2) To inform the patient of the sequence of polishing.
- (3) To address any patient concerns.

20.07 Assessment

A) Explain four procedures that should be completed prior to polishing.

- (1) Review and update the medical history with the patient.
- (2) Assess patient's health and oral conditions.
- (3) Inform the patient of the procedure and the office philosophy on coronal or selective polishing. Obtain informed consent from the patient for the procedure.
- (4) Check for supragingival calculus.

20.08 Cleaning and Polishing Agents

A) Define the characteristics of an abrasive agent.

- (1) The agent should produce a smooth tooth surface. It must not remove tooth structure, surface fluoride, or abrade the gingival tissue.

20.09 Abrasion

A) Define abrasion.

- (1) Abrasion is the wearing away of the tooth structure by friction.

B) Explain the rate of abrasion.

- (1) The rate of abrasion is dependent upon the composition of the agent and the manner in which the agent is applied.

C) Explain the mechanical action of an abrasive agent when it is applied to the tooth.

- (1) The agent contains abrasive particles that have sharp edges. These particles abrade the tooth surface and produce microscopic scratches and grooves in the tooth structure.

D) List three characteristics of abrasive particles.

- (1) Shape.
- (2) Hardness.
- (3) Particle size.

E) Define how the shapes of the particles affect the rate of abrasion.

- (1) Irregularly shaped particles with sharp edges produce deeper grooves and a faster rate of abrasion than rounded particles with dull edges.

F) Define the characteristics of hardness.

- (1) The particles in the agent must be harder than the tooth surface that is to be polished.

G) Explain how the particle size (grit) of an agent affects the abrasive quality.

- (1) The finer the abrasive particles, the glossier the surface finish. The larger the particle size, the more abrasive and less ability to polish the surface.

20.10 Application of Abrasives

A) List and explain three considerations when applying an abrasive to the tooth surface.

- (1) Quantity – The more particles applied to the tooth surface each time, the faster the rate of abrasion. (Note: Particles that are mixed with a liquid are proportional to the thickness of the paste.)
- (2) Speed of application – The faster the speed of application, the faster the rate of abrasion. (Note: When speed is increased, pressure must be reduced. Rapid abrasion increases frictional heat.)
- (3) Pressure of application – The heavier the pressure applied to the surface, the faster the rate of abrasion. (Note: Heavy pressure produces frictional heat.)

20.11 Commonly Used Abrasive Agents in Dentistry

A) List seven types of agents that may be used in dentistry.

- (1) Sillex – Used for stain removal in the superfine form on tooth surfaces.
- (2) Calcium carbonate (whiting, calcite, chalk) – Used for various polishing procedures.
- (3) Tin oxide (putty, powder, stannic oxide) – Polishing agent for restorations and teeth.
- (4) Pumice – Flour pumice is the least abrasive and used to remove stains from enamel. (Note: fine pumice is mildly abrasive and coarse pumice is not for use on natural teeth.)
- (5) Rouge (jeweler's rouge) – Iron oxide is a red powder sometimes found on paper discs. Used on composite restorations and margins of porcelain restorations.
- (6) Emery (corundum) – Not to be used directly on the enamel. Aluminum Oxide is the pure form of emery.
- (7) Diamond Particles – Polishing paste for porcelain surfaces.

20.12 Commercial Preparations for Polishing

A) List the six ingredients in commercially prepared pastes.

- (1) Abrasives – 50-60% of the main ingredient. Example: Pumice.
- (2) Humectant – 20-25%, retains the moisture in the product and stabilizes the ingredients. Example: Sorbitol.
- (3) Water – 10-20%, solvent and provides desired consistency.
- (4) Binder – 1.5-2.0%, prevents separation and helps prevent splatter. Example: Agar.
- (5) Sweetener – Artificial and noncariogenic.
- (6) Flavoring and coloring agents.

B) Explain how commercial pastes are packaged.

- (1) Packaged in the form of pastes, powders and tablets. Available in measured amounts in individual packets.
- (2) Prophy paste is based on the abrasive quality.

20.13 Armamentarium

A) Explain the function of the handpiece.

- (1) Rotary instruments are placed into the handpiece, which is a hand held instrument that requires a power source to operate.

B) State the two classifications of rotary instruments.

- (1) Ultra or high speed.
- (2) Low speed.

C) Explain the purpose of the prophylaxis angle.

- (1) The rubber cup or bristle brush is attached into the prophylaxis angle. Angles may be a right angle screw-on type or right angle snap-on type.

D) List and describe the two types of prophylaxis angle attachments.

- (1) Rubber cups.
 - (a) Slip-on with ribbed cup.
 - (b) Slip-on with bristles.
- (2) Bristle brushes.
 - (a) Slip-on or screw type.
 - (b) Latch-type (mandrel mounted.)

E) State two uses for the rubber cup and brush.

- (1) The rubber cup is used for the removal of stains from the tooth surfaces and for polishing restorations. A portion of the inner cup's edge is used when removing stain.
- (2) A bristle brush removes stains from deep pits and grooves on the enamel surface and as a preliminary instrument for polishing restorations.

F) State two uses for dental tape or floss.

- (1) Polishing the interproximal surfaces.
- (2) Removal of particles from the interproximal areas.

G) Explain one use for finishing strips.

- (1) For stain removal on the proximal surfaces of anterior teeth when removal of stain is not accomplished by other methods. (Note: finishing strips should only be used on the enamel surfaces of teeth.)

H) State one use for bridge threaders.

- (1) A flossing aid to help guide floss under bridges or around orthodontic appliances.

I) State three uses for the mouth mirror.

- (1) Illumination
- (2) Indirect vision.
- (3) Retraction of the cheek.

J) State two uses for the explorer.

- (1) To check the tooth surface prior to polishing.
- (2) To differentiate between intrinsic and extrinsic stain on the tooth surface.

K) Explain the use of hydrogen peroxide for the removal of black line stain.

- (1) 3% hydrogen peroxide helps to remove black line stain. It is mixed with an equal part of water and applied with a cotton tip applicator to the stain prior to polishing.

L) List the 15 components of the armamentarium on the tray set up.

- (1) Mouth mirror.
- (2) Explorer.
- (3) Dental floss and/or tape.
- (4) Dappen dish for disclosing solution.
- (5) Gauze 2 x 2s.
- (6) Cotton tip applicators. (2)
- (7) Finger cup for holding prophylaxis paste.
- (8) Prophylaxis paste/polishing agent.
- (9) Lip lubricant.
- (10) Disposable prophylaxis cup or latch type prophylaxis cup.
- (11) Handpiece or latch-type prophylaxis angle.
- (12) Saliva ejector.
- (13) Waste container or cup for disposal of floss, gauze, etc.
- (14) Patient bib and chain.

- (15) Optional: Bridge threaders, abrasive polishing strips, hydrogen peroxide.

20.14 Principles of Polishing

A) State five principles of polishing.

- (1) Use a modified pen grasp.
- (2) Establish a fulcrum on a hard structure or tooth surface.
- (3) Apply steady pressure on the rheostat for a slow, even speed.
- (4) Use the proper strokes and correct sequence.
- (5) Maintain proper aseptic techniques and infection control.

B) Explain the philosophies of traditional polishing vs. selective polishing.

- (1) Current literature states that polishing is indicated only on tooth surfaces where stain is present following dental instrumentation.
- (2) Offices may still support the traditional approach of polishing all the tooth surfaces for the removal of stain and plaque after dental instrumentation. Patients may prefer this approach if not educated about the current standard of practice for selective polishing.

21.0 Application of Pit and Fissure Sealants

- I) Number of Tasks to Master = 69.
- II) Intended Outcome: Given information about pit and fissure sealants, overall the student must demonstrate to at least 85% accuracy on the didactic examination.
- III) Tasks:

21.01 Pit and Fissure Sealants

- A) List the three indications for sealant placement.
 - (1) A deep fissure, fossa, or pit is present, especially if it catches the tip of the explorer.
 - (2) The fossa selected for sealant placement is well isolated from another fossa with a restoration present.
 - (3) An intact occlusal surface is present where the contra lateral tooth surface is carious or restored.
- B) List the four contraindications for placing sealants.
 - (1) Patient behavior does not permit use of adequate dry field techniques throughout the procedure.
 - (2) There is an open occlusal carious lesion.
 - (3) Caries, particularly proximal lesions, exist on other surfaces of the same tooth.
 - (4) A large occlusal restoration is already present.
- C) Describe the three principal types of pit and fissure configurations.
 - (1) U-type: Wider opening.
 - (2) V-type: Narrower opening.
 - (3) I-type: Bottleneck shape.
- D) List the five important instructions given to the patient or parent of the child prior to placement of sealants.
 - (1) Sealants only help prevent caries on the tooth surfaces where the sealants are applied.
 - (2) Plaque control, fluoride therapy, and sugar discipline are still necessary.
 - (3) Life expectancy of sealants vary from patient to patient.
 - (4) Contact the office if there is any sign of breakage or loss.
 - (5) The sealant will be monitored at each six-month recall appointment.

E) List the three most important ages to seal primary and permanent teeth.

- (1) Age 3 to 4 years for primary molars.
 - (2) Age 6 to 8 years for first permanent molars.
 - (3) Age 11 to 13 years for second permanent molars.
- Note: These ages correspond with normal eruption patterns

F) Describe the three reasons adults are considered for sealants.

- (1) When there is evidence of impending caries susceptibility. For example if a patient is undergoing radiation therapy or other diseased caused treatments.
- (2) Drug-induced xerostomia.
- (3) Excessive intake of sugar.

G) List the 13 armamentarium supplies and instruments needed for placing a sealant.

- (1) Basic tray setup including bib and 3-way syringe.
- (2) Evacuator tips.
- (3) Isolation materials: 2 x 2 gauze, cotton rolls, and cotton pellets.
- (4) Rubber dam or Garmer clamps.
- (5) Slow speed handpiece.
- (6) Prophylaxis brush.
- (7) Flour of pumice.
- (8) Acid etch, brush, or syringe.
- (9) Sealant material, sealant applicator.
- (10) Curing light.
- (11) Dental floss.
- (12) Articulating paper.
- (13) Fluoride.

H) List the 11 steps in sealant application.

- (1) Confirm the tooth to be sealed.
- (2) Pumice and rinse tooth.
- (3) Isolate tooth.
- (4) Dry and acid etch tooth.
- (5) Rinse tooth thoroughly.
- (6) Re-isolate tooth.
- (7) Dry and check for an opaque/frost appearance of the tooth.
- (8) Apply sealant material to the tooth.
- (9) Check the tooth for voids or bubbles in the sealant.
- (10) Check the occlusion for high spots.
- (11) Apply fluoride to the tooth.

I) Describe the five most common technical errors when placing a sealant.

- (1) Contamination by either saliva or calcium phosphate products.
- (2) Inadequate surface preparation by improper cleansing or application of the acid etch.
- (3) Using outdated materials.
- (4) Air entrapment due to poor placement technique.
- (5) Over extension of the material beyond the conditioned tooth surface.

J) Describe the five steps in checking occlusion.

- (1) Dry tooth thoroughly.
- (2) Place articulation paper on the tooth that has been sealed.
- (3) Have patient tap teeth together and slide mandible from side to side.
- (4) If there are heavy markings, use a finishing bur to make any adjustment.
- (5) If there are only light markings, explain to the patient that the feeling of “high” will go away in a few days.

K) State the reason for post sealant fluoride treatment.

- (1) The etching process has dehydrated the tooth, therefore, the tooth is subject to injury and bacteria for approximately 24 hours. Fluoride provides the necessary protection for the tooth during this period of time.

L) Record the appropriate sealant procedure in the patient’s chart.

- (1) Date and tooth number.
- (2) Pumice and rinse.
- (3) Remove pumice from grooves with explorer and rinse again.
- (4) Isolate teeth to be sealed.
- (5) Dry and etch for 60 seconds.
- (6) Rinse for 20 to 30 seconds.
- (7) Re-isolate.
- (8) Dry for 20 seconds – Check etched surface.
- (9) Apply sealant.
- (10) Check application with explorer.
- (11) Check occlusion.
- (12) Apply fluoride.
- (13) Give post-operative instructions to the patient.

22.0 Obtaining Alginate Impressions

- I) Number of Tasks to Master = 127.
- II) Intended Outcome: Given information about hydrocolloid impression materials, the armamentarium required to mix alginate, patient preparation, tray selection, preparing impression trays, spatulation technique, loading the mandibular alginate and maxillary impression tray, and seating the trays, overall the student must demonstrate to at least 85% accuracy on the didactic examination.
- III) Tasks:

22.01 Hydrocolloid Impression Materials

- A) Define two types of hydrocolloid.
 - (1) Irreversible hydrocolloid – A material that has the ability to change from a liquid state (sol) to a semisolid state (gel) but do not have the ability to change from a semisolid to a liquid state.
 - (2) Reversible hydrocolloid – Have the ability to change from a solid state to a liquid state and back again to a solid state.
- B) Define impression
 - (1) A negative replica of a dental structure.
- C) Explain three reasons for taking alginate impressions.
 - (1) Study models.
 - (2) Opposing models.
 - (3) Construction of temporary crowns.
- D) Name two factors that will affect gel strength.
 - (1) Water powder ratio.
 - (2) Spatulation time.
- E) Name two factors that will affect setting time.
 - (1) Manufacturer's properties.
 - (a) Fast set.
 - (b) Slow set.
 - (2) Water temperature.

F) Identify two factors that affect dimensional stability.

- (1) Syneresis – loss of water.
- (2) Imbibition – uptake of water.

22.02 Armamentarium Required to Mix

A) Identify seven items required to mix alginate

- (1) Alginate material.
- (2) Water measure.
- (3) Powder scoop.
- (4) Paper cup or paper towel.
- (5) Room temperature water.
- (6) Flexible bowl.
- (7) Alginate spatula, flexible and broad.

22.03 Patient Preparation

A) List four steps in preparing the patient.

- (1) Review the health history.
- (2) Inspect the mouth.
- (3) Rinse the mouth.
- (4) Explain the procedure.
- (5) Instruct the patient.

22.04 Tray Selection

A) Identify three purposes of an alginate tray.

- (1) Carry material.
- (2) Control material.
- (3) Confine material.

B) Identify four types of trays available.

- (1) Disposable styrofoam.
- (2) Perforated metal.
- (3) Solid rim-lock metal.
- (4) Plastic.

C) Identify three variations in alginate tray coverage.

- (1) Full arch, maxillary or mandibular.
- (2) Anterior only.
- (3) Right or left quadrant.

D) List seven requirements in tray selection.

- (1) Inspect the mouth.
- (2) Clears tissue by 3-mm.
- (3) Long enough to clear the retromolar pad or the tuberosity while not touching the incisors.
- (4) The tray falls 3-mm short of the peripheral turn.
- (5) Incisors should set in the deepest anterior portion of the tray.
- (6) The tray sides do not grossly depress any frenum.
- (7) The patient does not feel excessive pain or pressure.

22.05 Preparing Impression Trays

A) Identify three reasons for installing beading wax.

- (1) Patient comfort.
- (2) Molds periphery of the tray to the vestibule.
- (3) Prevents the teeth from touching the tray.

B) List three criteria for correctly placed beading wax.

- (1) Wax extended around the entire periphery of the tray.
- (2) Wax does not interfere with tray fit.
- (3) Three small wax squares placed in the occlusal anterior, and posterior of left and right.

22.06 Spatulation Technique

A) Sequence the 12 steps in mixing alginate.

- (1) Read the manufacturer's directions.
- (2) Measure required amount of room temperature water.
- (3) Pour water in bowl (or powder first as indicated by the manufacturer).
- (4) Fluff alginate powder.
- (5) Fill powder with scoop, tap to eliminate air pockets, level and place in a cup or on a paper towel, repeat if required.
- (6) Replace alginate lid.
- (7) Combine water and powder as indicated by the manufacturer.
- (8) Stir the mix to wet all powder particles.

- (9) Begin spatulation in a stropping motion. Rotate the bowl. Spread the mix against the sides of the bowl.
- (10) Gather the mix after 20 seconds and repeat step 10.
- (11) Mix until the mix is creamy.
- (12) Gather the mass and load the tray in as few increments as possible. Total mixing time should not exceed one minute.

22.07 Loading the Mandibular Alginate Tray

A) List the eight steps in loading the tray.

- (1) Have a small cup of water available to smooth the alginate surface.
- (2) Spatulate alginate according to instructions.
- (3) Gather alginate on spatula.
- (4) Wipe half into one side of the tray from the peripheral border and press into tray.
- (5) Repeat by wiping the other half into the other side of the tray.
- (6) Wet finger and smooth the surface of the alginate material.
(**Optional**, wipe small amount of alginate onto the occlusal surfaces of the mandibular teeth just prior to seating the tray to minimize trapping bubbles)
- (7) Loading time should be approximately 30 seconds.
- (8) Seat the tray.

22.08 Loading the Maxillary Impression Tray

A) List the eight steps in loading the tray.

- (1) Have a small cup of water ready for smoothing tray alginate.
- (2) Spatulate alginate according to instructions.
- (3) Remove alginate from the bowl in one mass.
- (4) Load the tray from the posterior.
- (5) Press the mass down with the spatula into the anterior. Make sure no voids are created.
- (6) Wet fingers and smooth the surface of the alginate.
- (7) **Optional**: Wipe alginate onto the occlusal of the teeth to minimize bubbles.
- (8) **Optional**: Remove any unwanted material from the palate area to minimize gagging.

22.09 Seating the Trays

A) List the 15 steps in taking the mandibular impression.

- (1) Position yourself between eight and nine o'clock.
- (2) The patient's shoulder should be at the same height as the operator's elbow.
- (3) Instruct the patient to rinse just prior to taking the impression.
- (4) Mix and load the tray.
- (5) Insert the tray.
- (6) Hold the tray in one hand and, with the other hand retract the cheek.
- (7) Slide the tray in side-ways until one-half of the tray is in the mouth; then rotate the tray and seat. The handle of the tray should be centered with the nose and perpendicular to the anterior teeth. The anterior portion of the tray must be positioned over the centrals to provide adequate material in the vestibule.
- (8) Ask the patient to close slightly.
- (9) Depress the tray, posterior to anterior.
- (10) Have the patient elevate the tongue; then depress the tray more.
- (11) Ask the patient to relax the cheeks and lip.
- (12) Position the tray by pressing firmly on the occlusal with the index fingers; place the thumbs under the mandible.
- (13) Instruct the patient to breathe deeply through the nose.
- (14) When the material is set, run your fingers around the peripheral border to break the seal, protect the upper teeth with your index finger of your left hand and remove with one firm movement or snap.
- (15) Rinse the impression under water, inspect, spray with disinfectant, wrap in a moist paper towel and place in a baggie.

B) List 11 steps in taking the maxillary impression.

- (1) The patient's shoulder should be positioned at the height of the operator's elbow.
- (2) The operator should be between 9 o'clock and 12 o'clock. (For right-handed operators.)
- (3) Insert the loaded tray, holding the tray with one hand and retracting the cheek with the other.
- (4) Slide the tray in side-ways until one-half of the tray is in the mouth; then rotate the tray and seat. The handle of the tray should be centered with the nose and perpendicular to the anterior teeth. The anterior portion of the tray must be positioned over the centrals to provide adequate material in the vestibule.
- (5) Seat the posterior of the tray firmly first, this will expel the material forward, instead of down the throat.

- (6) Continue seating the anterior portion of the tray.
- (7) Lift the upper lip to free it from the tray. Have the patient relax cheek and lips. Lift the lip over tray to obtain an impression of muscle attachments and the frenum.
- (8) The patient's head should be tipped forward to prevent flow down the throat.
- (9) Instruct the patient to breathe deeply and slowly through the nose.
- (10) When the material is set, lift the cheeks to break the seal, protect the opposing teeth, separate with one firm, continuous motion.
- (11) Follow the same steps as given for the mandibular arch. Rinse, spray, wrap, bag.

C) List the six steps in creating a tongue space on the mandibular.

- (1) Mix one scoop of alginate.
- (2) Wipe it on the middle two fingers of your non-dominant hand.
- (3) Place the mandibular alginate tray handle towards the heel of the hand, over the alginate. Use the heel of the hand to support the tray handle.
- (4) Using moistened fingers of your dominant hand, join the alginate to the lingual borders of the impression, creating a smooth, flat floor.
- (5) Hold the tray in place until set.
- (6) Gently free the fingers, wrap and bag.

D) List the 10 criteria for a completed satisfactory mandibular alginate impression.

- (1) The tray was seated so all detail is reproduced, including the teeth, the complete peripheral turn and a portion of the retromolar pads.
- (2) The detail is sharp, not blurred or indistinct.
- (3) The impression is free of voids in critical areas.
- (4) The impression is free of large folds of alginate extending into the patient's throat.
- (5) There are no areas where the alginate has pulled away from the tray.
- (6) The impression is free of rips and tears, except in interproximal areas.
- (7) The alginate covers the tray (no unwaxed tray is visible through the alginate).
- (8) The alginate is free of bulges or depressions that indicate a sub-surface bubble.
- (9) The alginate is smooth, not sponge-like or grainy.
- (10) The tongue space is smooth, flat and does not overlap the impression.

E) List the ten criteria for a satisfactory maxillary impression.

- (1) The tray was seated so all detail is reproduced, including the teeth, the complete peripheral turn and all of the tuberosity.
- (2) The detail is sharp, not blurred or indistinct.
- (3) The impression is free of voids in critical areas.
- (4) The impression is free of large folds of alginate extending down the throat.
- (5) There are no areas where the alginate has pulled away from the tray.
- (6) The impression is free of rips and tears, except in interproximal areas.
- (7) The alginate covers the tray (no unwaxed tray is visible through the alginate).
- (8) The alginate is free of bulges or depressions that indicate a sub-surface bubble.
- (9) The alginate is smooth, not sponge-like or grainy.
- (10) The palatal arch is complete.

23.0 Temporary Crown Restorations

- I) Number of tasks to master = 56.
- II) Intended Outcome: Given information about the types, materials, uses and techniques of temporary crowns restorations, overall the student must demonstrate to at least 85% accuracy on the didactic examination.
- III) Tasks:

23.01 Types, Materials, Uses and Techniques of Temporary Crowns

- A) Explain nine reasons why temporary crowns are placed.
 - (1) To prevent sensitivity in the prepared tooth.
 - (2) To protect the dentin from oral fluids.
 - (3) To maintain occlusion.
 - (4) To prevent fracturing of the finish line or breakdown of the prepared tooth.
 - (5) To prevent changes in gingival tissue caused by infringement of the crown margin or by food impaction.
 - (6) To provide for lost function.
 - (7) To maintain lost function.
 - (8) To restore or improve the contour of the original tooth.
- B) List six types of temporary crowns.
 - (1) Anatomical metal crown.
 - (2) Stainless steel crown
 - (3) Non-anatomical metal crown.
 - (4) Preformed polycarbonate plastic crown.
 - (5) Preformed cellulose plastic crown.
 - (6) Custom resin crown.
- C) List two advantages of the anatomical metal temporary crowns.
 - (1) Malleability.
 - (2) Low cost.
- D) List two disadvantages of the anatomical metal temporary crowns.
 - (1) Softness.
 - (2) Aesthetic appearance.

- E) List four advantages of the preformed plastic temporary crowns.
- (1) Aesthetically pleasing to the patient.
 - (2) Easy adaptation for acceptable fit.
 - (3) Selective options for tooth shade.
 - (4) Variety of choices of sizes and shapes.
- F) List one disadvantage of the preformed cellulose plastic temporary crowns.
- (1) May cause slight open contact.
- G) List three advantages of the custom resin temporary crowns.
- (1) Superior fit compared to other temporary crowns.
 - (2) Aesthetically pleasing.
 - (3) Can be made to fit any tooth in the mouth.
- H) List two disadvantages of the custom resin temporary crowns.
- (1) Takes longer time to produce.
 - (2) Initially more difficult to produce.
- I) Explain four types of finish/margin lines.
- (1) Bevel or slant.
 - (2) Camfer or slope.
 - (3) Feather or knife edge.
 - (4) Shoulder or ledge.
- J) Discuss seven types of resin materials.
- (1) Methyl methacrylate.
 - (2) Light-cure resin.
 - (3) Ethyl methacrylate.
 - (4) Vinyl ethyl methacrylate.
 - (5) Urethane dimethacrylate.
 - (6) Epimine.
 - (7) Composite.
- K) Discuss two types of occlusion.
- (1) Infra-occlusion.
 - (2) Supra-occlusion.

L) Describe temporary cement.

- (1) Dental material used for temporary restorations referred to as Intermediate Restorative Materials (IRM)

M) Discuss nine criteria for accomplishing placing temporary crowns.

- (1) The crown margin allowance of 0.5-mm short.
- (2) The cervical margin is smooth.
- (3) The cervical margin fits snug against to tooth.
- (4) Facial contour is similar to the natural tooth.
- (5) Lingual contour is similar to the natural tooth.
- (6) Occlusal anatomy is accurate.
- (7) Occlusal plane is accurate.
- (8) Contacts (Floss meets with some resistance).

N) Discuss five additional techniques for fabricating custom temporary crowns.

- (1) Wax molding technique.
- (2) Putty impression technique.
- (3) Intraoral molding technique.
- (4) Vacuum-formed plastic resin tray.
- (5) Relining aluminum shell crowns.

O) Discuss the importance of septic techniques that apply to fabricating temporary crowns.

- (1) To prevent cross-contamination during fabrication of temporary crown.